

**TWO NEW SPECIES OF MIMOSEPSIS SABROSKY (DIPTERA:  
CHLOROPIDAE) FROM NIGERIA**

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ABSTRACT—The generic diagnosis of *Mimosepsis* Sabrosky is modified and a key to the species is given. *Mimosepsis scutellaris* and *M. myrmecophila* are described as new species.

The genus *Mimosepsis* of the subfamily Oscinellinae was erected by Sabrosky (1951:748) to accommodate his new Nigerian species *M. mallochi* (1951:749).

Mr. M. A. Cornes of the Nigerian Stored Products Research Institute, Lagos has collected *M. mallochi* and series of two new species referable to this genus, which he has kindly asked me to describe. This new material exhibits some characteristics that differ from the original generic diagnosis, which calls for some modification of it. The number of pairs of orbital bristles varies from four to six, the ratio of the lengths of second to third costal sectors from 2.3 : 1 to 4.6 : 1 and the ratio of the length of hind crossvein to apical section of fifth vein from 1 : 1.5 to 1 : 2.0. The subbasal constriction of the abdomen varies from strongly petiolate (fig. 6, 7) to slightly constricted (fig. 8). The abdomen of the male bears, in addition to the hypopygium, only four visible segments. If the prehypopygial tergite, which bears no spiracles, is considered to be a fusion of tergites 6 + 7, then the apparent basal tergite is a fusion of 1 + 2 + 3. Hennig (1958:634, fig. 280), however, shows that in *Oscinella frit* (L.) the apparent prehypopygial tergite bears two pairs of spiracles and is therefore a fusion of two tergites (6 + 7), but he states (1958:676) "Bisher sind allerdings nur sehr wenige Arten auf dieses Merkmal hin untersucht worden und es wäre wichtig, durch ausgedehntere Untersuchungen festzustellen, ob im Grundplan der Chloropidae wirklich nur 1 Tergitkomplex zwischen Praeabdomen und Hypopygium vorhanden ist." Other diagnostic characters common to species of *Mimosepsis*, but not included in the original description, are: Proboscis geniculate, extending forwards to or almost to the tips of the palpi, the apical backwardly-directed section slightly longer than the basal section; lower occiput with a pair of long straight bristles situated midway between neck and mouth margin; hindermost jowlar bristle long and erect, not forwardly-directed as are the others; female abdomen with five apparent tergites, the oviposter, when extended, as long as the preabdomen.

Key to species of *Mimosepsis*

1. Wing with 2 conspicuous infusate areas, basal 1 including area proximad and anterior to base of discal cell and embracing entire costal and 1st basal cells, and large preapical spot. Scutellum black. Abdomen (fig. 6,7) strongly petiolate, the basal dorsal membranous area (dotted in fig.) straplike. Hairs on arista (fig. 4) shorter, not longer than its basal diameter. Upper occiput medially concave. Mesonotum medially with double row of setulae ..... 2
- Only preapical (in this case almost apical) dark spot present on wing. Scutellum lemon yellow, strongly contrasting with black thorax. Abdomen (fig. 8) only slightly constricted near base, the basal dorsal membranous area cupshaped. Upper occiput medially convex. Mesonotum medially with single row of setulae ..... *scutellaris*, new species
2. Third costal sector twice as long as 4th (fig. 1). Preapical wing spot narrow, not or hardly wider than length of 4th costal sector .... *mallochi* Sabrosky
- Third costal sector 2.8 times as long as 4th (fig. 2). Preapical wing spot large, three times as broad as the length of the fourth costal sector ..... *myrmecophila*, new species

*Mimosepsis mallochi* Sabrosky

fig. 1, 6

Female: W. Nigeria: Ilaro Forest, 3.iii.1974, M. A. Cornes. This is darker than any of the type-series, having the humerus black and the fore coxa reddish black.

*Mimosepsis scutellaris* Deeming, new species

fig. 3, 5, 8, 9

Male: Head black, very narrowly yellow on anterior and lower eye margins, more broadly so on orbits, with face and anterior part of frons reddish black, greyish dusted throughout with exception of shining black jowls; ratio of length of face to width of frons at fore margin = 1 : 1.7; 4 pairs orbital bristles; only 2 pairs incurved interfrontal bristles bordering ocellar triangle; ocellar bristles shorter than postverticals; antenna yellowish brown with apex of 3rd segment darker; arista (fig. 5) dark, rather long haired; palpus yellow to brown apically, becoming black basally; clypeus and proboscis black. Thorax black, greyish dusted, with scutellum lemon yellow and scutellar hairs and bristles dirty yellow; notopleural bristles subequal; mesonotum with single row of close set setulae medially and shorter row of much more irregular and widely spaced setulae between it and dorsocentral lines. Legs weakly grey dusted, yellow, with mid and hind coxae, apical half of mid-femur, basal  $\frac{1}{3}$  to  $\frac{2}{3}$  of mid-tibia and entire hind tibia black, sometimes also fore coxa and femur and entire mid-femur black or fore femur with infusate longitudinal stripe posteriorly. Wing hyaline with dirty-yellow veins and distinct preapical dark spot (fig. 3); ratio of length of 2nd to 3rd to 4th costal sectors = 8.8 : 1.9 : 1; apical section of 5th vein  $2\times$  as long as posterior crossvein; haltere yellow with a slightly darker stem. Abdomen black, grey dusted, lacking long bristles, but little constricted near base in dorsal view (fig. 8), dorsal basal membranous area cupshaped; hypopygium (fig. 9); genital

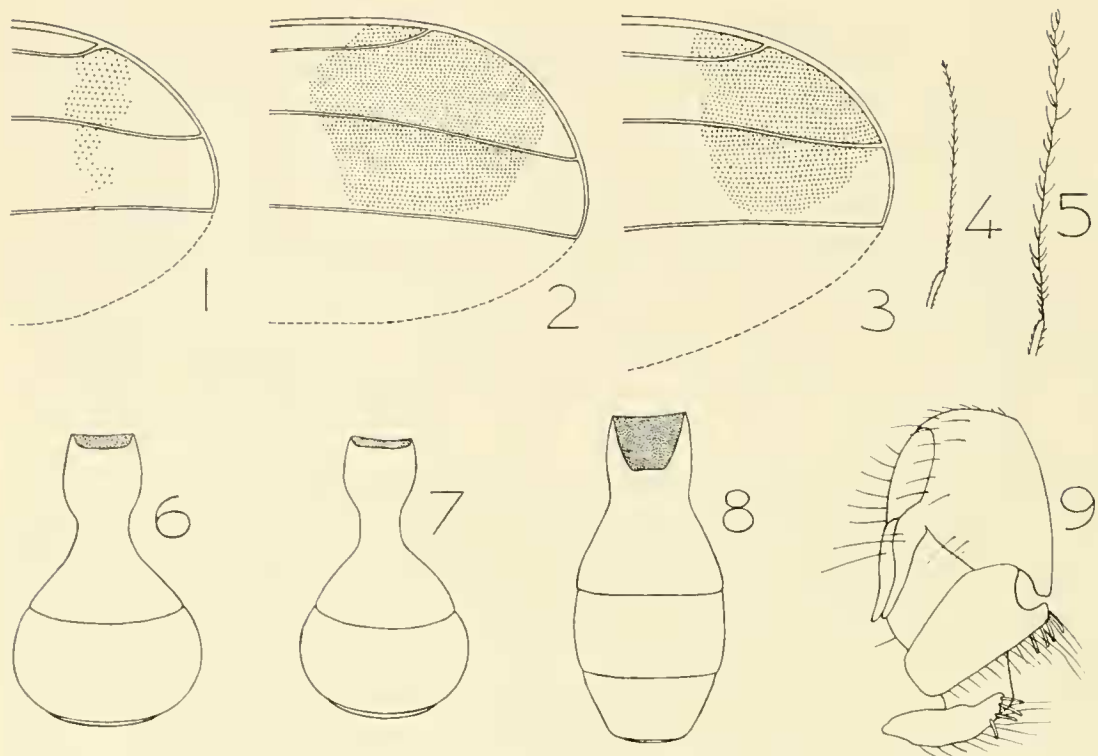


Fig. 1-3. Wing tip of *Mimosepsis* sp. 1, *M. mallochi*. 2, *M. myrmecophila*. 3, *M. scutellaris*. Fig. 4-5. Arista of *Mimosepsis* sp. 4, *M. myrmecophila*. 5, *M. scutellaris*. Fig. 6-8. Dorsal view of abdomen of *Mimosepsis* sp. 6, *M. mallochi*. 7, *M. myrmecophila*. 8, *M. scutellaris*. Fig. 9. Hypopygium and appendages of *M. scutellaris*.

forceps bearing long fine hairs and several short stout apically rounded bristles. Length about 3 mm.

Female: Resembling male, apart from sexual differences in abdominal structure, differing from male in having antennae dark brown throughout and legs colored as in darker males but with hind femur yellow only at extreme base.

Holotype: ♂, Nigeria, Lagos State, Ikorodu, 25.viii.1974, M. A. Cornes. Paratypes: 4 ♂♂, 3 ♀♀, same data; 3 ♂♂, 2 ♀♀, 10 miles W. of Lagos, 24.ii.1974, *Crematogaster* ant associated; 5 ♂♂, 1 ♀, 4 miles N.W. of Agege, 18.viii.1974; 4 ♂♂, W. Nigeria, Ilaro Forest, 29.xii.1974, all the above coll. M. A. Cornes; ♂, N. Nigeria, Niger Prov., Nr. Mokwa, Zurgurma, 24.xii.1971, J. C. Deeming.

Holotype and paratypes in Brit. Mus. (Nat. Hist.), paratypes in Cornes/Riley Coll., Inst. Agric. Res., Samaru, U.S. Nat. Mus. and Mus. Nat. Hist. Nat., Paris.

*Mimosepsis myrmecophila* Deeming, new species

fig. 2, 4, 7

Male: Head black, grey dusted except on jowls, faintly and narrowly yellow on eye margin except posteriorly and with face and anterior part of frons reddish black; width of frons at fore margin twice length of face; 5 pairs incurved inter-

frontal hairs; antenna brown; arista (fig. 4) short haired; palpus yellow apically, dark basally; clypeus and proboscis black. Thorax black, grey dusted; mesonotum with 2 approximated rows of close-set setulae medially and equally long row of close-set setulae between them and dorsocentral lines. Legs weakly dusted, yellow on entire midtarsus and apical 3 segments of fore and hind tarsus, deep black on mid- and hind coxa, mid-tibia and hind femur and tibia, elsewhere reddish brown to reddish black. Wing hyaline with brown veins and a basal and (fig. 2) preapical dark spot; ratio of length of 2nd to 3rd to 4th costal sectors = 6.3 : 2.8 : 1; apical section of 5th vein 1.8 times as long as posterior crossvein; haltere vivid yellow with black stem. Abdomen (fig. 7) black, grey dusted with only fine hairs, strongly petiolate, the basal dorsal membranous area strap-like; hypopygium and appendages very similar to those of *scutellaris*, but hypopygium more extensively haired and genital forceps lacking short blunt bristles. Length about 2.8 mm.

Female unknown.

Holotype: ♂, W. Nigeria, Ilaro Forest, 2.xii.1973, ant associated, M. A. Cornes. Paratypes; ♂, same data; 3 ♂♂, same locality and collector, 3.iii.1974.

Holotype in Brit. Mus. (Nat. Hist.), paratypes in Cornes/Riley Coll., Inst. Agric. Res., Samaru, U.S. Nat. Mus. and Mus. Nat. Hist. Nat., Paris.

#### REFERENCES

- Hennig, W. 1958. Die Familien der Diptera Schizophora und ihre phylogenetischen Verwandtschaftsbeziehungen. Beitr. Entomol. 8:505-688.  
 Sabrosky, C. W. 1951. Ruwenzori Expedition 1934-5, Chloropidae. British Museum (Natural History). 2:711-828.

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#### NOTE

#### NEW NAMES FOR NORTH AMERICAN CERATOPOGONIDAE (DIPTERA)

I am taking this opportunity to propose new names for two species of Ceratopogonidae whose names are preoccupied. I am much indebted to A. V. Gutsevich and H. Remm for calling the homonymy to my attention.

*Culicoides neomontanus* Wirth, new name for *Culicoides montanus* Wirth and Blanton, 1969, Proc. Ent. Soc. Washington 52:225 (preoccupied by *Culicoides montanus* Shakirzjanova, 1962, Akad. Nauk Kazakhskoi SSR Inst. Zool. Trudy 18:258).

*Dasyhelea neobifurcata* Wirth, new name for *Dasyhelea bifurcata* Wirth, 1952, Univ. California Pubs. Ent. 9:161 (preoccupied by *Dasyhelea bifurcata* Kieffer, 1923, Arch. Inst. Pasteur d'Algerie 1:669).

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